

CLAIMS:

1. A wireless network comprising a radio network controller and a plurality of assigned terminals, which are provided for coding certain data to be transmitted and for changing at certain instants the respective cipher key necessary for the coding, characterized in that the radio network controller is provided for transmitting a message coded with an old cipher key to a terminal, which message is about a cipher key change and in that the terminal is provided for transmitting to the radio network controller a message coded with a new cipher key as an acknowledgement of the new cipher key.
2. A wireless network as claimed in claim 1, characterized in that the radio network controller is arranged for sending a cipher change command coded with the old cipher key to a terminal and in that the terminal is provided for sending a cipher change command coded with a new cipher key to the radio network controller.
3. A wireless network as claimed in claim 1, characterized in that the cipher change command sent by the radio network controller contains a new cipher key.
4. A wireless network as claimed in claim 3, characterized in that the radio network controller is arranged for sending a match command to the terminal when the received key matches the sent key.
5. A wireless network as claimed in claim 4, characterized in that

the terminal is provided for using the key received from the radio network controller for the coding of data when the terminal receives the match command or data coded with the new cipher key.

- 5 6. A wireless network as claimed in claim 1,
characterized in that
the radio network controller at the beginning of the cipher change is provided to stop the
transmission of data units.
- 10 7. A wireless network as claimed in claim 6,
characterized in that
the radio network controller, after messages about the instant of validity of the new cipher
key have been exchanged, is provided for verifying whether also at least one terminal uses
the new cipher key and, after the verification, is provided for starting to transmit data units in
15 dependence on the verification result with the new or the old cipher key.
- 20 8. A wireless network as claimed in claim 1,
characterized in that
the radio network controller and at least one terminal are provided for storing data unit
numbers and featuring the key used in the data units during a synchronization phase which
starts with the sending of the first data unit coded with the new cipher key either from the
radio network controller or the terminal and ends with the repeated sending of the last data
unit coded with the old cipher key either from the radio network controller or the terminal.

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